

ERGONOMIC CABLE TIE INSTALLATION TOOL

ABSTRACT

[00101] An ergonomic cable tie installation tool includes a generally pistol-shaped housing including a grip which depends from a barrel. Pivots connected to the lower region of the grip is a trigger linkage of a trigger mechanism. The trigger mechanism also includes an intermediate linkage pivotally connected to the trigger linkage. The intermediate linkage is supported in the housing. The intermediate linkage is, in turn, connected to a tensioning mechanism also supported in the housing. The tensioning mechanism couples the intermediate linkage to the cable tie. Pivoting the trigger linkage toward the grip, normally by the hand of a user, causes the intermediate linkage to pivot resulting in the tensioning mechanism producing an increased tension in the cable tie. The trigger linkage is oriented relative to the grip such that pivoting it toward the grip requires the stronger fingers of the user's hand to travel more than the weaker fingers thereby improving the ergonomics of the tool. The trigger linkage may also make the respective travel distances of the stronger and weaker fingers more uniform also improving the ergonomics of the cable tie installation tool. Moreover, the trigger mechanism may provide for the tension force applied to the cable tie to increase as the trigger linkage is increasingly pivoted toward the closed position. Methods of operating the tool also provide improved ergonomics of the tool.